$$\lambda_{\mathrm{eff}} = \lambda_{\mathrm{air}} - 2\alpha\left[\frac{1}{n_1} + \frac{1}{n_2}\right]\left(\frac{\lambda_{\mathrm{air}}}{n_1}\right)^2 \left[\frac{1}{n_1} + \cdots \right. \tag{8}$$